

A METHOD OF KEEPING ALCOHOLIC SPECIMENS.

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The following method of preserving alcoholic specimens has been used at the Dallas laboratory for the Bureau of Entomology for a number of years. It has been found to be more satisfactory than any other system tried.

The specimens to be preserved are placed in the smallest size shell vials, which will contain the specimens, and a brief, finely printed label. For minute specimens, such as mites, mallophaga, etc., shell vials 25 mm. in length by 8 mm. in diameter are used. In fact, this size vial is employed for all specimens which can be placed in them without crushing. About three other sizes of shell vials are employed for the larger material. For short, thick specimens short vials of large diameter are used. The shell vials containing the specimens and labels are stopped with a small compact wad of absorbent cotton and the vials are then inverted and placed in a larger container. The container employed by us is a shell vial, 100 mm. long, by 28 mm. in diameter. A small layer of absorbent cotton is placed in the bottom of the container before the vials are inserted. This prevents danger of cracking the bottom when the small vials are dropped in. Each container is limited to one species, or if very little material of a certain kind is to be collected one of the large vials may contain a genus or even larger groups.

Ordinarily, however, each container is limited to a species, and a label bearing the name of the species is placed on the outside of the container, as is also the container number. Containers of the above diameter will hold conveniently seven or eight of the smallest size vials in one layer, and two layers may be placed in each. The container is then filled with alcohol in order to cover the vials and a good quality of cork used to close it. In the Dallas collection the material is then filed systematically by orders and alphabetically by genus and species under these. The containers are kept in wooden racks sufficiently wide to hold two of the bottles with a partition between and twelve inches long. A label is placed on the end of the rack to show the material it contains, and cardboard riders are set on the

longitudinal strip which divides the two sides of the rack. These are labelled to designate the genus, or in case a large number of containers is used for one species, the species name may be shown on these guides. For very large specimens we find it unnecessary to employ the double tube system. The accompanying illustration shows a rack partially filled with containers. Note the cardboard riders which are used as guides and the label on the end of the rack.

A number of advantages have been found in this method. It saves space by having the material more concentrated than where collections are preserved in individual vials; these large

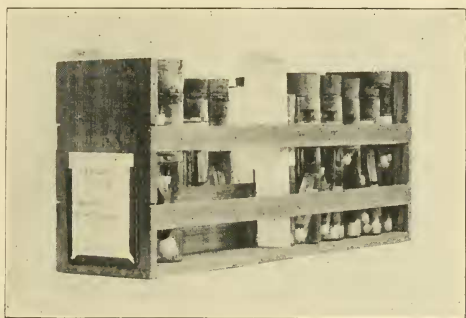


Figure 1

containers do not dry out so rapidly as small ones; there is not the usual trouble with the corks becoming hard and loose, owing to direct contact with the alcohol, and the specimens will remain moist as long as there is the smallest trace of alcohol in the container; the collection presents a neatness and uniformity which adds to its appearance and aids in classification and ease of finding material; the large size of the containers permits of having a label stuck to each, thus avoiding tag labels tied on small vials or loss of time necessary to look at the labels within hundreds of alcoholic vials; there is a large saving by not having to go through a great number of small vials in filling them, as each container will hold from one to fourteen of the individual vials. Furthermore, it is possible to allow an untrained helper to fill the containers as the material itself is never touched and there is no danger of losing specimens by overflowing individual vials.

Of course the kinds of racks in which the material is kept and the system of filing them should depend upon the individual needs and conditions, but the essential system, that of having a large outside container with a number of individual vials therein, may be employed in almost any museum or laboratory.

At Dallas it has been the practice to accession all material before it is put away, each lot receiving an accession number. The labels are made as brief as possible, usually only the name of the species and accession number being given. When it is desired to get more complete data the accession catalogue (in card form) may be consulted. Our labels are made with India ink. They are thoroughly dried by heat before using. We have found it possible to save time in the future by writing the accession number on both sides of each label. The method of labelling, of course, is also subject to change according to individual preference. As far as possible, the vials containing material of a given species are placed in the containers in numerical sequence. When time permits they may be arranged in perfect numerical order, and the number of the container (the series containing each species to begin with No. 1) as well as the inclusive accession numbers of the material in each inserted on the container label.

For convenience sake we have found it advisable to divide the entire alcoholic series into three parts, numbering these series I, II and III. Series I contains all the material under the accession catalogue which it is desired to keep; series II (the "life history series") contains bred material which is designed to illustrate all of the different stages of an insect or other form; series III is composed of specimens for exchange, or in other words a duplicate series.

I have recently observed a number of different systems for arranging alcoholic material in different laboratories and museums, and have heard several say they did not like the double-tube system. In these cases, however, the containers used were very little larger than the vials containing the specimens, therefore each container was occupied by but a single vial of specimens. This only tends to increase the volume of the collection, does not facilitate refilling with alcohol, and the containers do not hold enough alcohol to prevent frequent fillings. I am of the opinion that if the double-container system, as described above, is employed, it will be found to be very free from objectionable points.